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REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

I. Disposition of Claims

Claims 1-6 are pending in this application. Claim 1 is independent. The remaining claims depend, directly or indirectly, from claim 1. Claims 1-6 have been amended. Claims 2-6 have been amended for clarity, *i.e.*, these amendments were not made in view of prior art.

II. Objection

The specification was objected to because the term “cast *ab initio*” was considered confusing and unclear. The Applicant respectfully notes that “*ab initio*” is a Latin term meaning “from the beginning.” (See, *e.g.*, Merriam-Webster Online Dictionary- www.webster.com.) In the specification at page 6, line 9, “threaded bolt holes 8 (seen in Figure 3) are then formed, or cast *ab initio*...” means that the threaded bolt holes are formed or cast from the beginning. In other words, the threaded bolt holes are, for example, drilled into the cylinder head or the threaded bolt holes are initially cast to be in the cylinder head. The specification has been amended to italicize the phrase “*ab initio*” to clearly indicate that this is a Latin term. Accordingly, withdrawal of this objection is respectfully requested.

III. Rejection under 35 U.S.C § 112

Claim 5 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claim 5 has been amended in this in view of this rejection. In particular, claim 5 recited, "said massive component has an upstanding formation..." Claim 5 has been amended to recite, "said massive component has an upstanding formation..." The Applicant thanks the Examiner for noting this typographical error and respectfully requests withdrawal of this rejection in view of the claim amendments made.

IV. Rejections under 35 U.S.C § 103

Claims 1-5 were rejected under 35 U.S.C. § 103(a) as being obvious over Applicant's Admitted Prior Art (AAPA) in view of Great Britain Patent No. 2 016 094 ("Heger"). Claim 1 has been amended in this reply to clarify the present invention recited. To the extent that this rejection may still apply to the amended claims, the rejection is respectfully traversed.

The Present Invention

The present invention, as recited in amended claim 1, relates to a method of assembling a bearing housing for a rotary shaft. The bearing housing includes a bearing cap and a relatively massive component. Particularly, the bearing cap and the massive component define respective semi-circular recesses, which cooperate to define a circular hole in which the rotary shaft is received.

The assembling of the bearing housing includes connecting the bearing cap to the massive component. The method further includes deforming at least two spaced portions of the bearing cap, such that the two spaced portions are in intimate contact with massive

component. Alternatively, the at least two spaced portions of the massive component are deformed, such that the at least two spaced portions are in intimate contact with the bearing cap. Further, the at least two spaced portions include two projecting lugs, which are located on opposite side of the circular hole formed by the bearing cap and the massive component. Deforming the at least two spaced portions, or specifically the two lugs, defines a unique relocation position for the bearing cap with respect to the massive component.

Once connected, the circular hole is bored into the bearing cap and the massive component. The bearing cap is then removed and the rotary shaft is inserted into the semi-circular recess of the massive component. The bearing cap is then reconnected to the massive component.

Advantageously, in the present invention, the relatively massive component or the bearing cap are deformed into intimate contact with one another, thereby defining a unique relocation position. Therefore, when the two portions of the housing are reassembled, the bearing housing and the relatively massive component automatically adopt this predetermined relocation position, ensuring that a truly circular hole is defined by the bearing cap and the relatively massive component.

Applicant's Admitted Prior Art (AAPA)

The background of the invention or the AAPA discloses the state of the art for bearing housings for rotary shafts. Typically, when assembling a camshaft, the only way in practice to ensure that the two portions of the bearing housing define a truly circular shape is to bore out the hole (or at least complete the boring of the hole), when the two portions are connected to one another.

Therefore, conventionally, the two portions of the housing are connected and a hole is bored into both portions. The two portions are disassembled and the rotary shaft is then inserted. Finally, the two portions are reassembled. However, in reassembly, the two portions do not always adopt the same position thereby creating a hole that is no longer substantially circular. The AAPA simply discloses the state of the art. The AAPA does not show or suggest the present invention, as recited in amended claim 1. Further, Heger fails to provide that which the AAPA lacks with respect to amended claim 1.

Heger

In particular, Heger relates to a bearing housing having a lower and an upper part. In the bearing housing as taught by Heger, a centering member is used to align the lower and upper parts. The centering member includes projections and faces. In Heger, these projections press fit against corresponding faces at a particular angle when the lower and upper parts are connected. The projections are slightly and resiliently deformed by the pressure of the faces. See ll. 119-129.

In contrast to the present invention, Heger does not disclose “deforming at two spaced portions of one of said bearing cap and said massive component into intimate contact with the other of said bearing cap and said massive component, wherein said at least two spaced portions comprise two projecting lugs on opposite sides of said circular hole,” as recited in claim 1.

The bearing cap in amended claim 1 uses two projecting lugs that are located on opposite sides of the circular hole formed by the bearing cap and the relatively massive component. Heger does not show or suggest two projecting lugs on opposite sides of the circular hole in either the lower or upper part of a bearing housing. In Figure 1 of Heger,

there is no showing of lugs as shown in Figure 1 of the instant specification. Consequently, Heger does not teach that the lugs are deformed to be in intimate contact with either the bearing cap or the relatively massive component. Furthermore, Heger does not define a unique relocation position for said bearing cap with respect to said massive component, as recited in amended claim 1. The slight and resilient deformation as taught by Heger contrasts with the present invention, which requires a deformation that defines a unique relocation position.

Because Heger fails to provide that which the AAPA lacks, claim 1 is patentable over Heger and the AAPA, whether considered separately or in combination. The dependent claims are likewise patentable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Roovers

Claim 6 was rejected under 35 U.S.C. § 103(a) as being obvious over AAPA in view of Heger, further in view of U.S. Patent No. 2,975,928 ("Roovers"). To the extent that this rejection still applies to the amended claims, this rejection is respectfully traversed. AAPA and Heger fail to teach or suggest amended claim 1 for at least the reasons set forth above. Roovers fails to provide that which the AAPA and Heger lack with respect to amended claim 1. Particularly, Roovers relates to a method and apparatus for adjoining metals and is completely silent to the elements of the present invention as recited in amended claim 1 missing from AAPA and Heger.

Because Roovers fails to provide that which the AAPA and Heger lack, claim 1 is patentable over the AAPA, Heger and Roovers, whether considered separately or in combination. Accordingly, withdrawal of this rejection is respectfully requested.

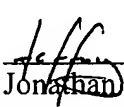
V. Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 04630.012001).

Respectfully submitted,

Date: 12/16/03

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